

1891.

ILLUSTRATED & DESCRIPTIVE
CATALOGUE
OF THE

"IRON AGE"

FARM & GARDEN
IMPLEMENTS.

MANUFACTURED BY

E.S. & F. BATEMAN,

GREENLOCH, CAMDEN CO., N.J.

WORKS ESTABLISHED
1836



OFFICE OF
Spring Mill Agricultural Works.

Grenloch, N. J., Jan. 1, 1891.

IT IS with genuine regret that we have dismissed the old name, "Spring Mills," which has done such good service during the past half century—dismissed it to become a memory only, in order that it shall not stand in the way of the more urgent needs of the present.

We have previously notified the trade, by circular letter, of the change, together with the causes which led to it; it will not be amiss, however, to repeat the same here. A line of railway, direct from Philadelphia, to our place, is in course of construction, and now nearly completed. This railroad is a connection of the Philadelphia & Reading R. R., which already has on its main line, and but a short distance from Philadelphia, a station called "Spring Mill," thus rendering it imperatively necessary that a change in the name of our place should be made, in order to avoid the confusion, particularly in freight matters, that would certainly arise if the old name were retained. Our manufacturing plant will still be known as the "Spring Mill Agricultural Works," a name which we trust will always have a pleasant ring to our friends as well as to ourselves.

In addition to our prospective railroad facilities, we have erected a large warehouse for storage and shipping purposes; also an extension of our finishing shop, nearly doubling our capacity in that direction.

We will always be glad to see our friends here, right on the spot, and we think we would find no difficulty in convincing them that we are in a position to manufacture the very best tools for the very least money possible, and we mean to do it too.

We will be pleased to have you look through the following pages; better pleased to have you send in a sample order, where you are not already acquainted with us and our line of implements, and still more glad when we number you as our permanent customers, thus establishing the fact that our goods are satisfactory and well appreciated.

Very truly yours,

E. S. & F. BATEMAN.

IN ORDERING, please give, if possible, full shipping directions; when the choice of route is left with us we shall use our best judgment; also our best efforts to secure low rates of freight.

We deliver all goods F. O. B. at any R. R., Steamer, or Canal line in Philadelphia; local freight charges to Philadelphia paid by us.

Make P. O. Orders payable at Philadelphia, Pa.

TO EXPORTERS our goods offer special inducements. All parts are thoroughly interchangeable and when "knocked down," pack very close.

Boxing for export at cost.

Send for Price List, with Terms and Cash Discount.

NO GOODS SENT OUT ON COMMISSION.

NOTE.—We regret to learn that owing to the great popularity of the "IRON AGE" some dealers cannot refrain from advertising themselves as selling it, while handling an inferior imitation.

Any direct violation of our Trade Mark we certainly propose to resent.

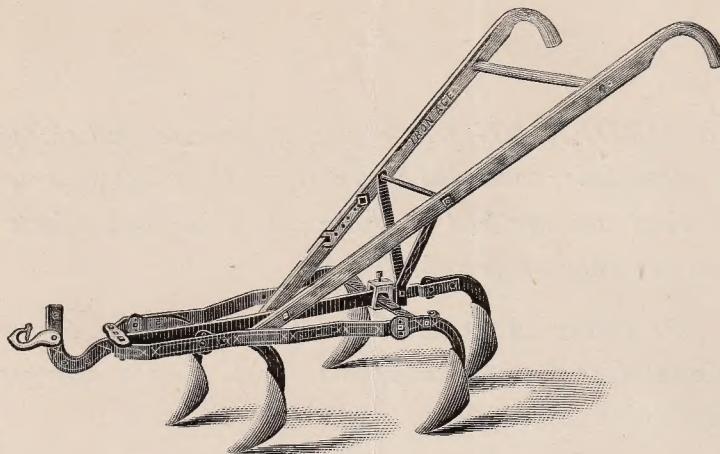


Fig. 10.

THE "IRON AGE" CULTIVATOR, PLAIN, NO. 1.

All Steel Frame.

Without Wheel, Price, \$6.00. With Wheel, \$7.00.

Since its first introduction in 1875, so many thousands have been sold and scattered so widely that it seems unnecessary that we should tell what the "Iron Age" is, how it is made or what it will do in the field. It is too well known to require this introduction. Suffice it to say that we are constantly striving for improvement, and believe we "get there" in making the tool the best and most complete on the market.

The "Iron Age" is now made of *all steel*, excepting, of course, the handles, wheel and some minor parts that are of the *best malleable iron*. The standards are of *solid steel*, which is, we believe, the only shape to give the required *stiffness*, with facility of repair by an ordinary smith.

We wish to call particular attention to our improved shape of side bars. For some years we have been having increased calls for "Iron Age," Nos. 1 and 2, equipped with seven teeth, especially when used with narrow points. This has led us to the adoption of a shape that enables the tool to be converted at will from a five-tooth to a seven-tooth and vice versa. This changeability is plainly shown in Figures 10 and 57, the latter showing the Cultivator with seven narrow points (No. 0).

In the above cut we represent the "Iron Age" in its simplest form—as a plain Cultivator. We sell it in this shape largely, as the various attachments can be very easily added by the dealer or farmer as they may be sold or needed.

The "Iron Age" is furnished in three sizes:

No. 1, for general use, weight 50 lbs.

" 2, medium size, " 56 "

" 4, two-horse, 7-tooth, " 85 "

In ordering, to avoid errors, please state plainly, size, style of point, and whether the Cultivator is wanted *plain* as in Figure 10, or *combined* as in Figure 11.

SEE COMBINATIONS, POINTS, ETC., ON FOLLOWING PAGES.
ALL GENUINE IRON AGE CULTIVATORS BEAR OUR "Iron Age" Trade
Mark

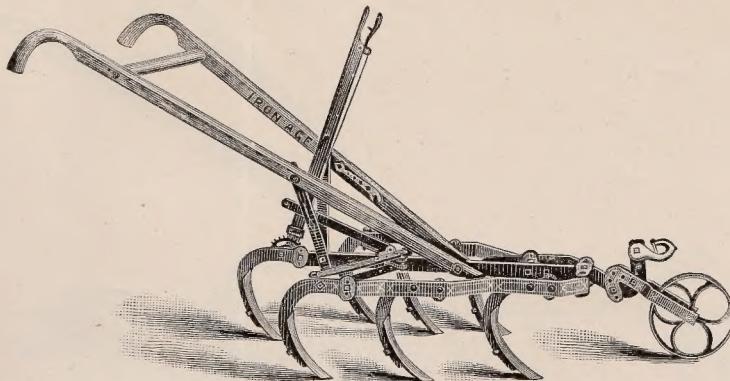


FIG. 57.

THE "IRON AGE" WITH SEVEN TEETH.

Shown with Wheel, and with Lever Adjustment.

Without Wheel, Price, \$7.25, with Wheel, \$8.25, with Lever Adjustment and Wheel (as shown in cut) \$9.50.

As intimated on the preceding page, there has been, lately, a demand for an adaptation of our No. 1 and No. 2 Cultivators to accommodate an additional pair of teeth, thus transforming it into a seven-tooth Cultivator. It is obvious that very many times in the cultivation of crops a cultivator having seven instead of five teeth becomes very desirable, and we are now able, by means of the new shape of our side bars to offer the Iron Age so that it can be converted, when desired, into a seven-tooth Cultivator. Of this arrangement we cannot speak too highly. Equipped with narrow teeth, No. 0 ($1\frac{1}{4}$ inches), or No. 1 (2 inches), it does most excellent work in the first workings or in flat cultivation of crops. It most thoroughly pulverizes all conditions of soil.

As will be plainly seen from above cut the change is made simply by the use of an additional pair of standards and teeth.

We also desire to call particular attention to the value of the Iron Age, as a seven tooth, for use in the cultivation of the sugar beet, an industry which is becoming very important in some sections of the country, particularly in the West.

There is already a demand for it, equipped with No. 0 Points and No. 17 Sweep in rear, and we have most emphatic testimonials to the fact that the tool, thus arranged, is the *best* single row Cultivator for beets yet manufactured.

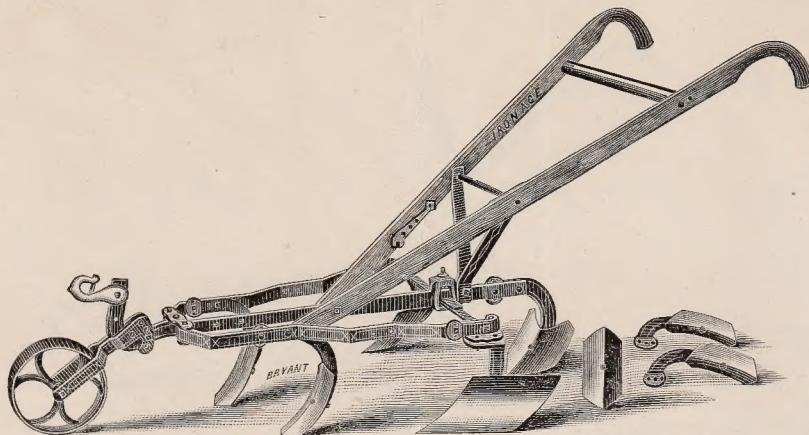


FIG. 11.

THE "IRON AGE" HORSE HOE, NO. 1.

Shown with Wheel and Cultivator Combination.

Plain Horse Hoe, Price \$7.00; with Wheel, \$8.00. Complete, as shown in Cut, \$9.44.

By the application of our HORSE HOE ATTACHMENT to the "Iron Age," with, as some prefer, a sweep in rear it is transformed into an unrivaled tool for plowing and hilling cotton, corn, tobacco and "truck," doing almost the entire work without the use of plow or hand-hoe.

The side hoes or plows, are reversible, giving double wear, while the standards, of very heavy, *solid* steel, have several adjustments, thus hilling the crop much or little, as desired.

This adjustability is an important feature in suiting the tool to various soils as well as crops.

If required to throw *from the crop*, the standards are changed to opposite sides—the work of a few moments. In this position they are shown on another page as adapted to covering purposes.

It has been attempted by some to turn to and from the crop without this changing to opposite sides, but the invariable result is that while the tool accomplishes both *indifferently*, it will do neither perfectly.

Valuable as is the plain "Iron Age" Cultivator, the Horse Hoe Attachment has carried it into new and enlarged fields of usefulness. The attention of cotton growers, especially, is called to this invaluable tool.

The machine is shown in above cut with Horse Hoe Attachment and Sweep; as in some sections our 69 Point is preferred to the Sweep, we are prepared to furnish it either way, as ordered.

The term "Horse Hoe Attachment" includes the two side plows with standard, and does not embrace the Sweep. We desire to call particular attention to this point, as in some cases our customers have been misled. In ordering the "Horse Hoe Attachment" if the Sweep is desired it should be ordered as a separate part; while in ordering the "Horse Hoe Complete" or "Horse Hoe and Cultivator Combined," (as in above cut) if nothing is specified in regard to the Sweep, we take it for granted that the Sweep is desired and so send it.

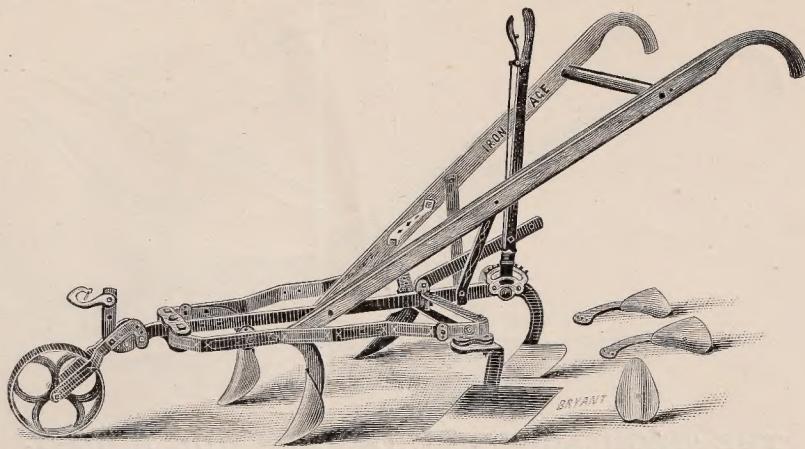


Fig. 54.

THE "IRON AGE" with LEVER ADJUSTER.

Price.

Complete, as shown in cut,	\$10.69
For the addition of Lever Adjuster to Iron Age, in any shape, add	1.25
Lever Adjuster Attachment (only)	1.75

At times, as is well known to all practical farmers, it is extremely important that a cultivator should be so constructed as to be readily and instantly adjusted in width, even making this opening and closing movement while in its forward progress.

We think our cut plainly shows the simple manner in which we accomplish this, and we believe we have by the use of a double set of expander bars on the toggle-joint, largely overcome the inherent weakness and general shakiness which usually accompanies the attempt to produce such a tool. Our attachment is designed with a special view of accomplishing this result and is simple and strong, while smooth and steady in its operation. By the change of a single bolt an independent adjustment of the right hand bar, often called for in the proper working of the tool, can be secured.

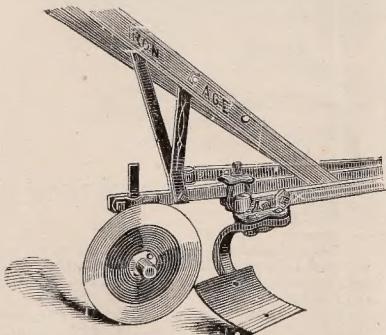


FIG. 13.—AS A SINGLE PLOW.

By arrangement as shown in this cut and with wheel in front, we have a tool for turning one furrow that is in some respects far superior to an ordinary plow, being adjustable in depth and strength of furrow, while the use of the Disc Attachment enables it to run with surprising steadiness. As shown on the "Pony," page 8, this attachment can be used for the purpose of cutting strawberry runners.

It is also very satisfactorily used in cutting *two rows* at one passage between the rows by using a Disc on *rear end* of each side bar.

Order as "Steel Disc Attachment."

Price, \$2.25.

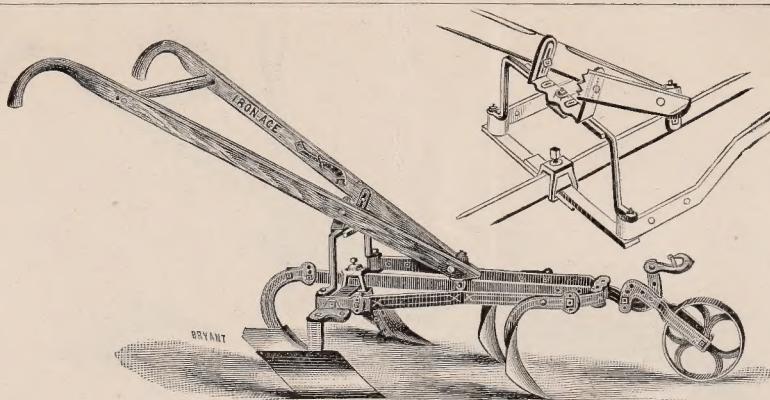


Fig. 58.

THE "IRON AGE" with HANDLE SIDE ADJUSTMENT and SIDE BRACES.

The Iron Age in the form shown above meets a demand that we have found growing for some time past, viz., the ability to adjust the handles sidewise, in order to work close to berry bushes, nursery stock, etc. It will be found also extremely valuable in covering and making up rows for the Seed Drill, avoiding the awkward walking astride the row that the operator is at times subjected to.

As will be seen by the cut this side movement is accomplished by the simple loosening and tightening of a single bolt, and in such a way that the rigidity of the tool is not sacrificed.

Of the value of the Side Braces we need scarcely speak, but would simply call attention to the indisputable fact that the Iron Age, when built as shown in above illustration, is emphatically the stiffest and most durable Cultivator made.

Prices.

As Plain Horse Hoe	\$7.75
With Wheel, (as shown in cut)	8.75
Plain Cultivator	6.75

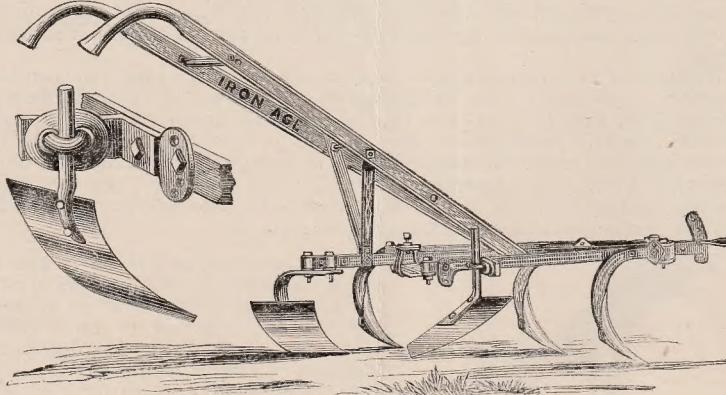


Fig. 14.

THE "IRON AGE" with ADJUSTABLE WEEDEER. Patented May 3rd, 1881.

To meet a want felt especially amongst Truckers, for a blade or steel adapted to fine, close work, in hilled as well as level crops, we offer our patented Adjustable Weeder Attachment. As shown in above cut (arranged for cultivation of sweet potatoes), it consists of a thin, curved steel blade, on a standard that is ADJUSTABLE IN EVERY CONCEIVABLE WAY, and yet held firmly enough to accomplish the work. If rightly adjusted it cannot be choked, while from the peculiar shape of the hoe it can be run very close to the smallest plants without injury to them.

Order as "Adjustable Weeder." Either right or left hand.

Price, \$1.50.

THE "IRON AGE" AS A
Corn Coverer.

Patented May 3, 1881.

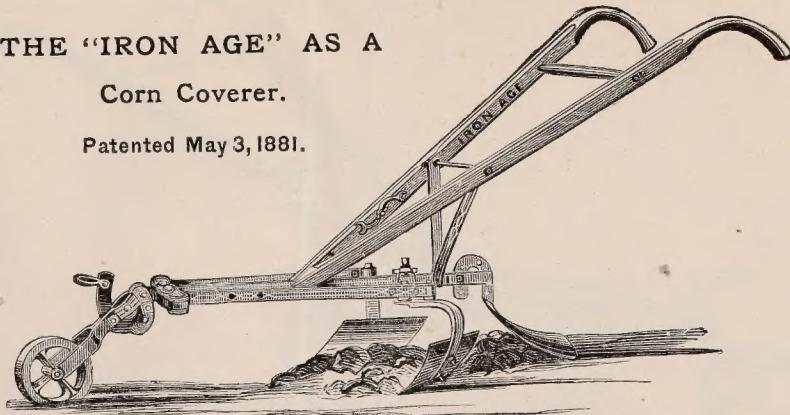


Fig. 16.—For covering corn, potatoes, peas, etc., and making up rows for root crops, etc., the "Iron Age," with attachments, as shown in cut, has no equal, and really is not approached by anything in the market, quite a *furore* being created by its adaptation to these purposes.

This work is accomplished by the use of our Horse Hoe Attachment, as shown, with wheel in front and patented "Leveler" Attachment in rear. A few moments' reflection will convince one of the great superiority of our Horse Hoe Attachment for this purpose over a tool using *scrapers* or one with sled-like steels; these *scrape* all clods, stones and hot surface soil into the row—*just what you want to keep out*, while our attachment does nearly the opposite.

In presenting a "Leveler" to do the work generally done by a roller—clumsy and heavy—we know we are somewhat off the beaten track, but its success is complete—it works beautifully. It is similar to an inverted shovel blade, highly polished on under side, while, being adjustable in depth as well as inclination, it carries the weight of the cultivator, to which is added the down-draft of the hoes, thus sufficiently "firming" the soil. In case the hoes throw too much dirt (as variation in soil will cause) the surplus simply passes over the sides of the Leveler, whereas a roller will load up in front, cease turning, and require lifting over. Easier to handle, lighter of draft, and to conclude, can be furnished at about ONE-HALF THE COST.

Our front wheel, which we usually send out with the Leveler, is so constructed that it will not pick up and carry the seed. Order as "Leveler Attachment." Price, \$1.25

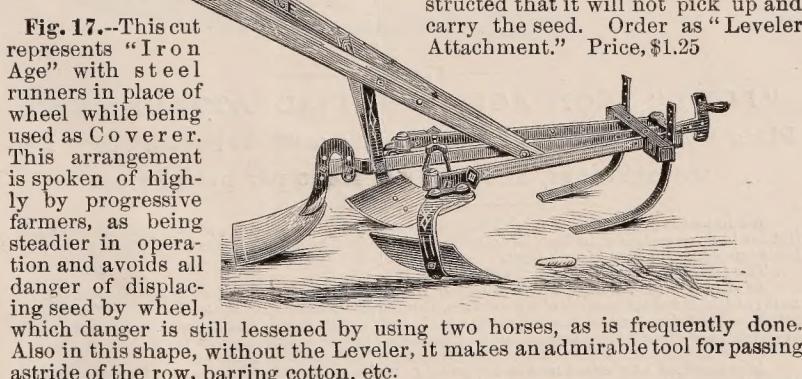


Fig. 17.—This cut represents "Iron Age" with steel runners in place of wheel while being used as Coverer. This arrangement is spoken of highly by progressive farmers, as being steadier in operation and avoids all danger of displacing seed by wheel, which danger is still lessened by using two horses, as is frequently done. Also in this shape, without the Leveler, it makes an admirable tool for passing astride of the row, barring cotton, etc.

Order as "Runner Attachment." Price, \$1.25.

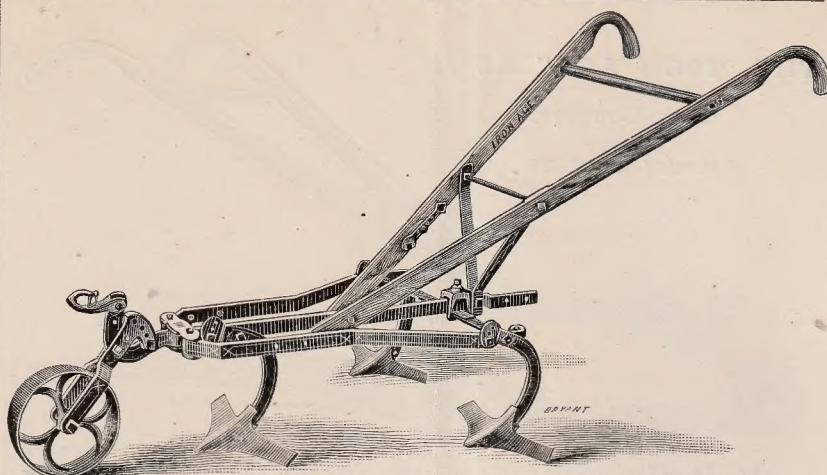


Fig. 55.

In this cut we represent the "Iron Age" equipped with No. 17 Sweeps in such a manner that a wide cut is made and at an exceedingly shallow depth. This arrangement is particularly intended for orange groves and cotton fields where very flat cultivation is called for.

They can, of course, be set to run deeper, and be used in various combinations. We make them in four sizes, eight, ten, twelve, and fifteen inches in width. Prices, respectively, 40, 45, 50 and 60 cents, each.

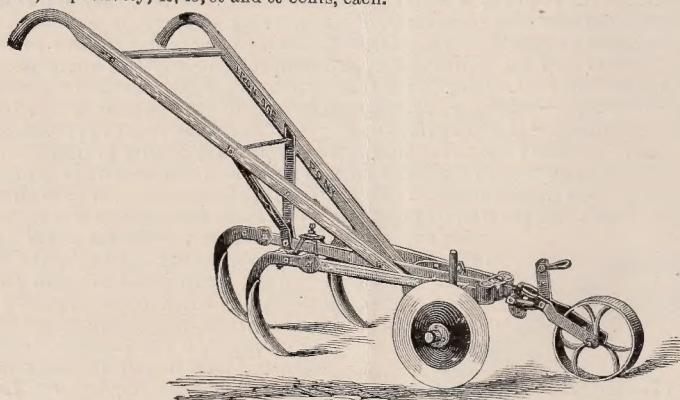


Fig. 18.

"PONY" IRON AGE, with DISC ATTACHMENT.
 Plain Pony Cultivator, Price \$6.00; with Wheel \$7.00. Disc Attachment, \$2.25. Side Hoes per pair, \$2.00.

We have brought out this modification of our cultivator in response to a call for a smaller, lighter tool; something, in fact, to do with a small horse or mule the work usually done by hand tools amongst truck and small fruit.

The frame is of steel—light, yet strong.

As shown above, it is arranged with our Disc attachment in front, cutting strawberry runners, at the same time cultivating between the rows. We have, also, for the "Pony" right and left side hoes, (on malleable standards) which, being adjustable in angle and pitch, are capable of doing very close work amongst small plants and between very narrow rows.

All attachments for the "Pony" or "Iron Age" are interchangeable.

As we sell all our attachments separately, make order distinct from "Pony" cultivator, thus, "Steel Disc Attachment," or "Pony Side Hoes."

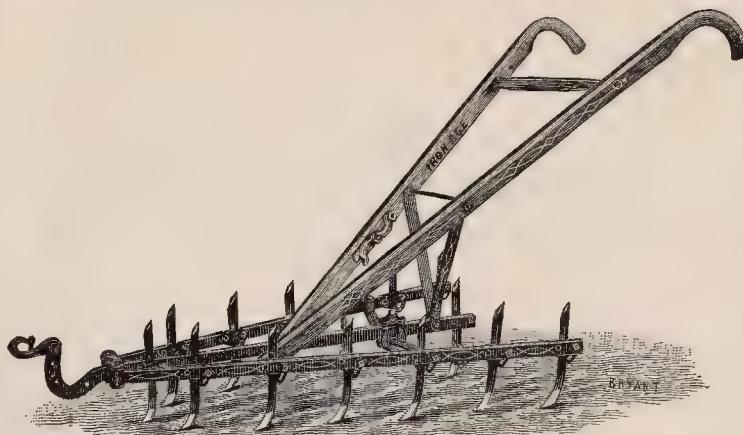


Fig. 20.
"IRON AGE" COMBINED HARROW AND CULTIVATOR.

Steel Diamond Teeth.
 Pat. Jan. 31, and Feb. 14, 1888.

Without Wheel, price \$7.50; with Wheel, \$8.50.

Above we represent our "Iron Age" Combined Harrow and Cultivator, a tool that has, since its introduction, seemed to go "right to the spot" among the farmers over the whole land.

As plainly shown in cut the teeth are diamond shaped, with a small cultivator tooth forged on one end—steel, of course.

With its *four* changes, easily made, we believe it to be unique as well as thoroughly practical.

The various positions of teeth are shown by cut below.

No. 1. Shows cultivator tooth, and is thus used for working very close to small plants of tobacco, potatoes, etc. Thoroughly pulverizes, but throws no dirt on plants.

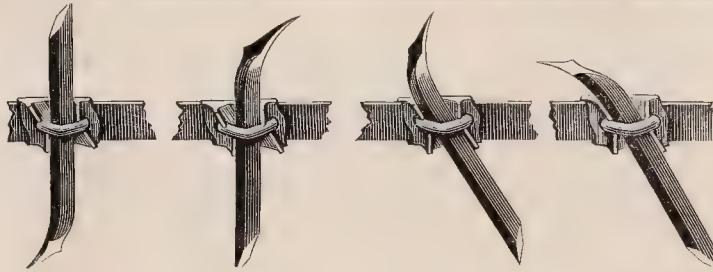
No. 2. As a straight Diamond Tooth Harrow.

No. 3. Represents the tooth as a smoother, with sharp points down in order to cut and level the surface. In this shape, the tool makes an excellent Lawn Scarifier.

No. 4. Shows the tooth with sheared end down, in this position being less liable to injure young plants when smoothing over corn, potatoes, etc.

For very close work, every other tooth can be quickly removed.

Furnished with Lever Adjuster if so ordered.



No. 1.

No. 2.

No. 3.

No. 4.

Fig. 21.

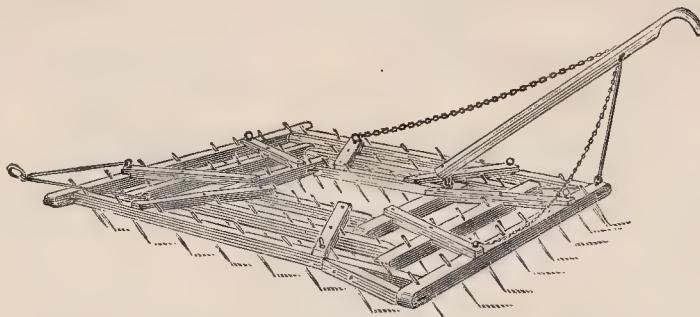


Fig. 22.

THE "JACKSON" FLEXIBLE HARROW.

Patented February 21, 1882.

Price \$15.00.

This excellent implement we manufacture under a royalty, having the exclusive right for the following territory, viz: all the New England States, New York, New Jersey, Ohio, North and South Carolina and Florida. We give below a few of the reasons why the "Jackson" is superior to all other Harrows.

1st.—Its perfect flexibility, being entirely unique in its idea of "double-jointedness." It will search out and more thoroughly harrow dead furrows, backings, and all inequalities of the surface than any other harrow made. It cannot dodge or trail.

2d.—Its adaptability to different purposes; being a perfect smoothing harrow, and by changing team to other corners a cut is made by the inclined teeth, which far excels a straight tooth in its complete pulverization of the soil. It is a "terror" in this respect.

3d.—Ease of handling; owing to shape of harrow and peculiar location of lever, it requires but slight effort to raise the harrow in order to clear it, or pass obstructions; while at the same time the pivot being centrally located, the whole half of harrow is cleaned from front to back.

4th.—It cannot turn over in turning; a point which will be appreciated by many who have found other harrows defective in this particular.

5th.—It is thoroughly made of best material—steel teeth and steel hinge rods.

6th.—It is low in price.



Cuts eight feet wide, 56 Steel Teeth.

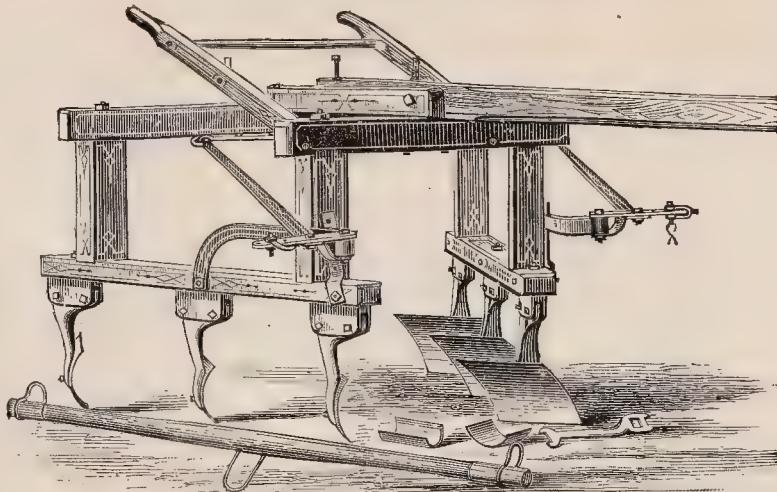


Fig. 24.

THE "RIGG'S" GANG PLOW.

With Bateman's "Improved Hitch and Draft Equalizer."
Patented August 9, 1881.

Price as shown, \$18.00.

Cultivator Teeth, per set, extra, \$3.25.

The Gang Plow represented above is one long and favorably known in some of the Atlantic States. We have, however, greatly improved its construction, particularly by the addition of our patented Hitch and Draft Equalizer. This improved Hitch, as will be seen from cut, removes the most serious objection to the old style Rigg's, as it entirely obviates the use of a double tree, allows free passage of corn through the arch and brings the draft on the lower frame, where it should be. Also, adjustable in height and width of draft. Neck yoke of extra length. We now supply cultivator teeth, with wrought iron standards, by the use of which the implement is converted into a most complete two-horse Cultivator.

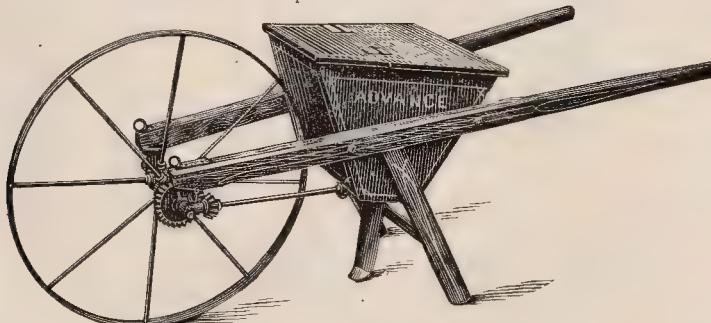


Fig. 56.

"ADVANCE" FERTILIZER DRILL.

Price, \$9.00.

The increased use of commercial fertilizers has fairly compelled the farmer and planter of the present day to provide himself with improved appliances for properly and economically distributing these adjuncts of modern farming.

We claim the "Advance" to be the best low priced Distributor on the market, and would call attention to its distributing disk, of galvanized iron, which can neither break nor rust; also, to the wrought iron wheel, light and strong.

A first-class tool for the drilling of peas and corn.

CULTIVATOR POINTS AND STEELS.

82



83



84



85



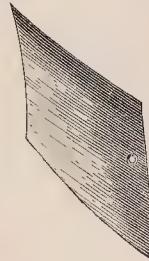
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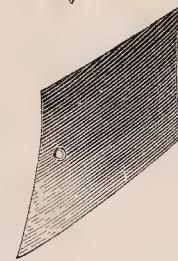
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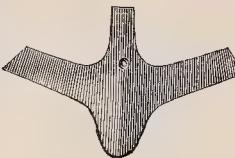
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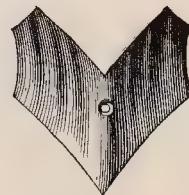
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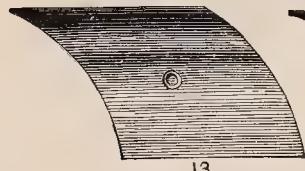
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11



12



13

CULTIVATOR POINTS AND STEELS.—Continued.

No. 0.



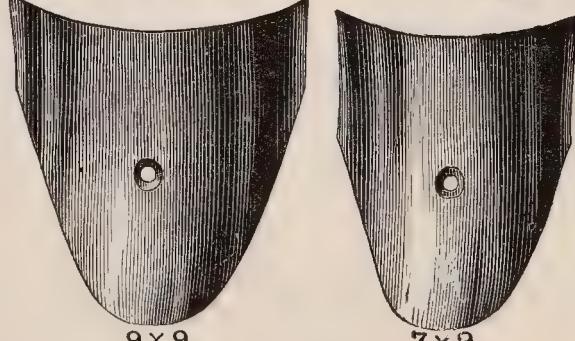
No. 1.



No. 79.



No. 68.



The manufacture of Agricultural Steels, and particularly Cultivator points, having become a specialty with us, and as a matter of convenience in ordering, we invite the attention of dealers and users to the lists and cuts shown, being some of the leading styles.

All Steels and Points made of good steel, perfect in shape, well tempered and *full* polished.

Nos. 0 and 1. Narrow, excellent for small plants, or as a "Hoop Harrow" for loosening hard soil. No. 0 is a great favorite among tobacco growers.

No. 79. Much liked in some sections, particularly for nursery work.

No. 68. The favorite style for general purposes.

No. 69. (Not shown in cut.) Same shape as No 68, a trifle larger.

CULTIVATOR POINTS AND STEELS.—Continued.

No. 10. Turn shovels—right and left hand.

No. 11. Sweeps—6 and 8-inch. The larger size is intended especially for cotton and sugar lands.

No. 12. Moulds or shares—right and left, for "Iron Age" Horse Hoe Attachment. $5\frac{1}{2} \times 9$.

No. 13. Shares for Rigg's Gang Plow, right and left, of following sizes: 6×6 , 6×8 and 6×10 .

Two sizes Shovel Blades— 7×9 and 9×9 —intended especially for "Iron Age" and Wood Frame Cultivators. Excellent for hillling purposes.

No. 14. A sweep that throws a stronger furrow than No. 11.

No. 17. A sweep for perfectly flat cultivation—8, 10, 12 and 15-inch.

No. 16. Turn Shovels—right and left—larger than No. 10.

Nos. 82 84, 85, 87, 88, 89. Different styles of points, used in various sections of the country.

Harrow Teeth—long taper—various sizes.

If wishing Bolts with Points, please specify. Our Point Bolts are of UNUSUAL QUALITY AND FINISH.

Are prepared to furnish any of above Steels, and particularly the favorite, No. 68, in LARGE QUANTITIES.

Estimates promptly made on any description of Agricultural Steels or forgings.

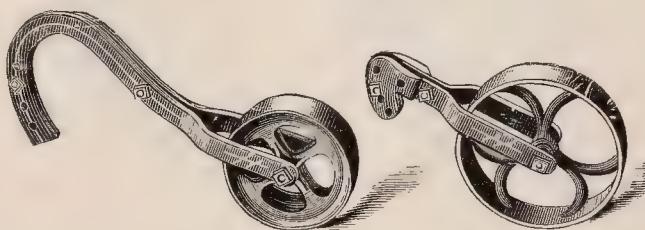


Fig. 26.—No. 1.

Price, \$1.25.

Fig. 27.—No. 2.

Price, \$1.00.

No. 1 represents our old style straps, which we shall keep in stock to supply the demand for wheels to be used on cultivators made previous to 1886. These straps will not fit the Cultivators as made at present. The wheel and axles are interchangeable with either kind of strap, but to the trade that uses our covering attachment we shall always send out the *flanged* wheel, as shown in No. 1.

In No. 2 we illustrate our new style wheel strap, which we shall use in the future, being more convenient and cheaper. We are now making these of *malleable iron and steel*.

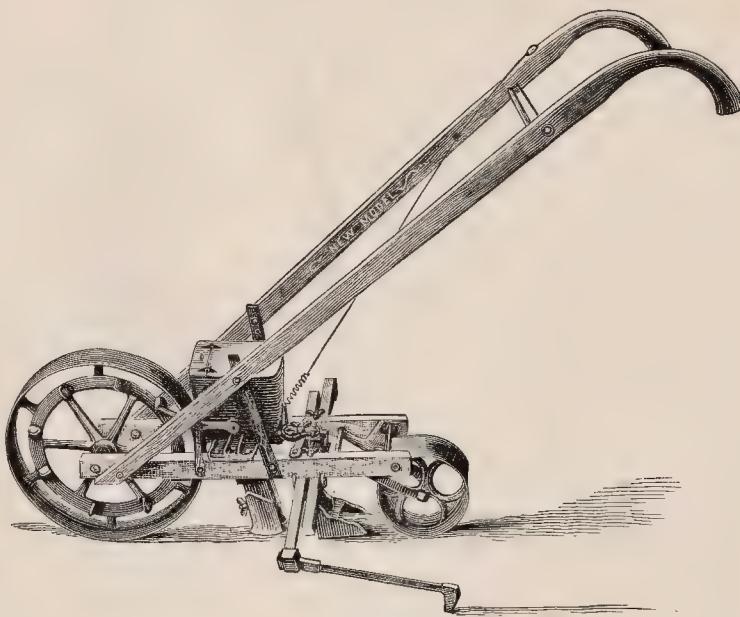


Fig. 23.-

THE "NEW MODEL" SEED DRILL.

THE MOST PERFECT DRILL IN AMERICA.

Price, \$9.00.

The record of the "New Model" has been so entirely satisfactory, and its place as one of the leading drills has become so firmly established that we are almost tempted to discard the term "New." It is surprising to see how quickly it has been adopted by the seedsmen and market gardeners as an old friend.

In reference to the "New Model" Drill we do not think it necessary to enter into a discussion about the necessity for and economy in the use of Seed Drills. Farmers and Gardeners generally, we believe, are now well enough posted to understand and fully appreciate all these points. Suffice it to say that the "New Model" is the result of careful experimenting in the field and factory, in close comparison with leading drills, and being constructed with the view of avoiding all radical defects of said drills, built in a workman-like manner, of best material and in neat style and finish, we venture to assert it will be found to be the *best seed drill in use* and indeed a *model* in every respect. We invite attention to some of the leading features of the "New Model."

Regulation of Discharge.—Drills of similar construction are usually provided with a series of holes of varying sizes through which the seed is passed, which of course do not always give an opening of the exact size required. The operator is usually told, in substance, that "if one hole don't suit, try another."

"NEW MODEL" DRILL.—Continued.

As will be readily seen, by reference to the sectional cut below, this adjustment is accomplished in a very simple and effective manner by use of a slide with a pear-shaped opening, passing under the bottom of the seed reservoir, which is provided with a perforation of similar shape in a reversed position. This slide can be instantly adjusted to size indicated by Index, or to a *hair-breadth variation between*—a vital point in a perfect seed drill.

Index.—As shown by enlarged cut below, the Index or Indicator is plain, convenient and reliable. It is placed in open sight immediately under the eye of the operator, and as stated above, can be quickly adjusted to the slightest variation desired. As the names of the principal seeds are plainly shown on the Index itself, it is not necessary to refer to any table of reference.

Cut-off.—The flow of seed can be instantly stopped by a *swinging* cut-off, conveniently operated by a cord and ring on handle. This cut-off prevents all loss of seed at end of rows, and its swinging or gravity form will be found far preferable to one that slides under, as it cannot be jammed by the falling seed.

Marker.—Is simple, easily adjusted and firmly held.

Broad Wheel.—The main wheel is of large size and of *unusual* width, preventing its sinking into soft earth.

Covering Roller.—Is attached by swinging frame, enabling operator to roll lightly or otherwise, by varying the pressure on handles; or, as some object to use of roller, it, with its frame, can be quickly removed.

Opening Plow.—Is of steel, adjustable in depth.

Handles.—Firmly bolted, braced and adjustable in height.

Each Drill crated and carefully packed for shipment.

Packed weight, about 40 lbs.

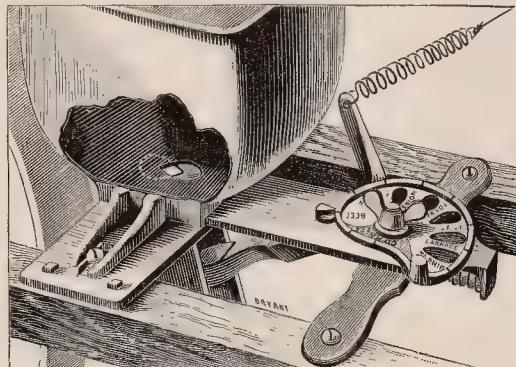


Fig. 29.

Sectional Cut, showing the perfect Index and manner of regulating the flow of Seed by the Slide, in connection with the Index. It also shows the application of the Swinging Cut-off.

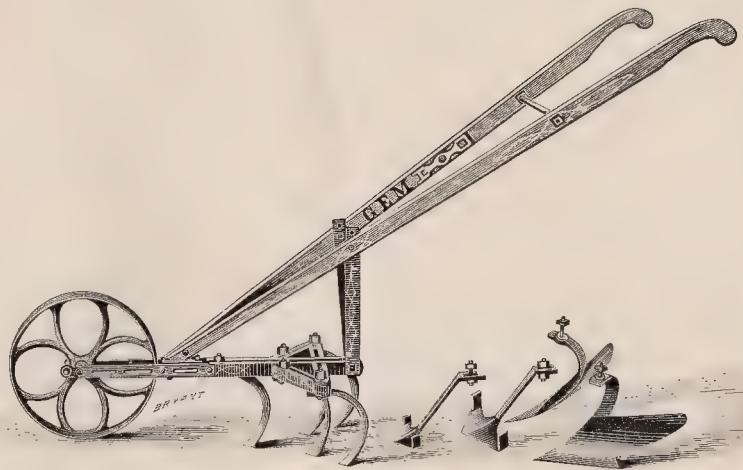


FIG. 30.
THE "GEM OF THE GARDEN."

The Leading Garden Wheel Hoe and Cultivator.

Plain, with 5 teeth only, \$4.00. Complete, as shown, \$5.60.

No greater proof can be given of the popularity of a tool, or of its intrinsic worth, than the one simple fact of a *continued* demand for it. During the past few years we have placed over *ten thousand* of the "Gem" Wheel Hoes in the hands of gardeners, and we are not aware of a single instance in which it has failed to give intense satisfaction to the user.

We fully believe it to be the most practicable tool, for every day use, that is offered to the gardening public.

It is not a *toy*; neither is it a tool made of extremely light, grey castings, calling for constant repairs, the "Gem" being largely made up of *steel* and *malleable iron*.

The set of slender stirring teeth, each stamped from one piece of steel, cannot be excelled for thorough work, especially in hard soil.

The "Gem" is nicely finished, and when set up makes a handsome, quick selling implement.

Ask your dealer for the "Gem of the Garden," and take no other."

A wrench accompanies each tool. Sold PLAIN (with five teeth only), or COMPLETE as ordered.

Each Tool fully boxed for shipment.

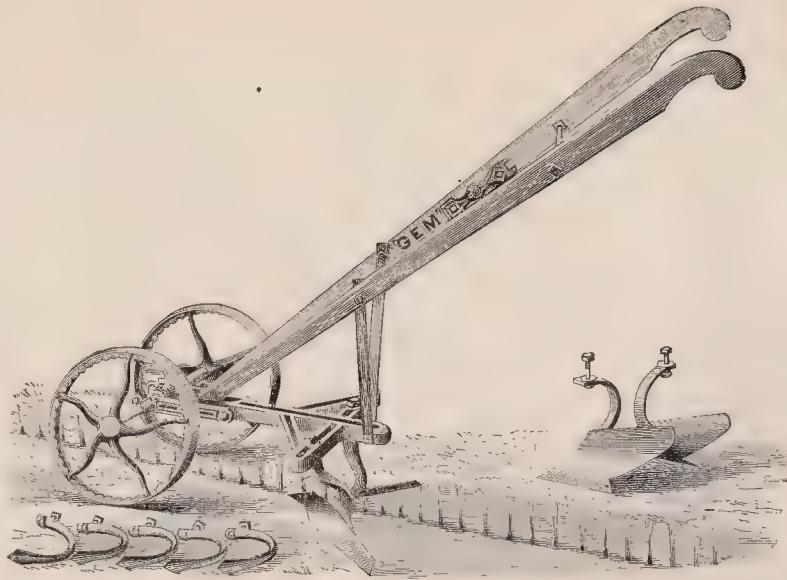


FIG. 31.

THE "GEM" as a DOUBLE WHEEL HOE.

Complete as shown, Price, \$6.50.

As will be seen by cut above, we now also offer the "Gem" as a DOUBLE WHEEL HOE. For first and second working of crops the tool is used astride the row, while for subsequent hoeings the wheels can be closed together by means of the telescopic axles, and used between the rows as a single wheel tool. With the double wheel machine we usually send out the side hoes as shown in cut; and with the single wheel, the scuffle hoe, (see cut of single wheel machine) although the side hoes may be used effectively with the single wheel.

To anyone wishing to convert a single into a double wheel machine, we can furnish the wheels, axles, and side arms as an attachment. We also offer, as an attachment, a good sized plow, with landside, for use with either style "Gem." Works splendidly for various purposes—opens a straight, deep furrow.

Also, an Onion Set Gatherer, used by passing under the row. Makes a very good scuffle hoe. Can be used with either style "Gem," though more particularly adapted for the Double Wheel.

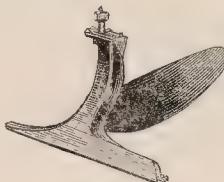


FIG. 32.
LANDSIDE PLOW.
Price, 80 cts.



FIG. 33.
ONION SET GATHERER.
Price, 80 cts.

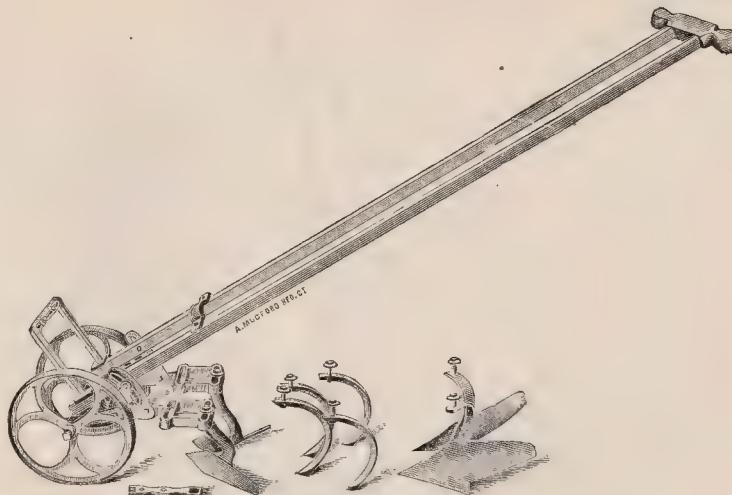


Fig. 34.

THE "JEWEL" DOUBLE WHEEL HOE, CULTIVATOR AND PLOW COMBINED.

Price Complete, \$6.00; with Side Hoes only, \$4.50.

In these days of "intense" farming—with a liberal use of fertilizers and close planting of crops—economy demands the use of Wheel Hoes, not only in the small garden plot, but in the larger field as well. Economy, in the expenditure of manual labor, likewise demands that Wheel Hoes shall be constructed in such a manner and of such material as to insure *lightness* together with great strength. Ordinarily they are made of cast iron, and in the attempt to produce a tool sufficiently light, constant disastrous breaks while at work are the sure results. To accomplish the one and avoid the other the entire frame of the "Jewel" Hoe is made of the best *malleable* iron, making an exceedingly light tool and one pleasant to handle, at the same time giving an almost absolute security against breakages.

The "Jewel" is capable of being quickly adjusted in depth or width of working, or height of handles. As shown in cut it is provided with four slender stirring teeth, each one made of one piece of steel, unexcelled for thorough work, especially on hard soil; one pair of side hoes, particularly intended for use among small plants; also a pair of plows for throwing to or from the row, or for opening furrows. The standards of these hoes and plows are of malleable and wrought iron—no cast iron.

THE "JEWEL" DOUBLE WHEEL HOES
Are Carefully Made, Handsomely Finished, and weigh but
22 lbs. each, complete,
Fully Boxed for Shipment.



Fig. 35.
Price, with 2 Hoes
only, \$2.75.

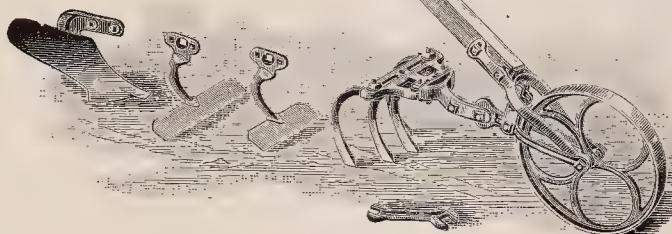


Fig. 36.

THE "JEWEL" SINGLE WHEEL HOE, CULTIVATOR AND PLOW COMBINED.

Price, \$5.00.

Like the Double Wheel "Jewel," this tool is constructed entirely, with exception of wheel and handle, of malleable iron and steel.

As plainly shown by the cuts, it is capable of several combinations—a simple, very easy working scuffle hoe, with hoes of six and nine inches in length; as a cultivator, with four steel teeth; or as a large sized wheel plow.

The "Jewel" is adjustable in every way, thoroughly well made and finished, and is, we believe, the *lightest* and *strongest* tool of its kind made.

Weighs, complete, but 15 lbs.

We offer it in its full combination; as a scuffle hoe, with two hoes; or wheel plow only, as shown below.

We would call the attention of onion growers particularly, to the single wheel "Jewel" being especially adapted to their needs.

Fig. 37.
THE "JEWEL" WHEEL PLOW.

Price \$2.75.

Malleable Iron Frame.
Light and Strong.
Weighs only 10 pounds.

Adjustable in depth of working, and height of handle.

As a Wheel Garden Plow, we are confident none can be found to excel or equal it.

Carefully Boxed.

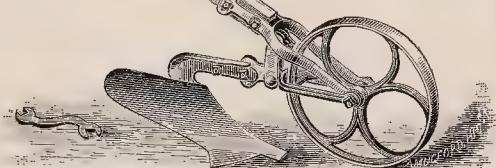




Fig. 39

BATEMAN'S HAND GARDEN PLOW.

Price, \$1.30.

This is one of those quiet, effective tools that stand against the garden fence, *always ready for duty*. Low in price, simple, never needing costly repairs, it is emphatically a friend of the poor man, whose few moments in the garden must be devoted to "straight ahead" work.

While it is useless to claim for it the ability of breaking ground in the spring, it is very useful in opening furrows for seeds and manures; for covering them, and for tending the crops afterwards.

It is built on a very neat model; has highly polished steel mold-board, is carefully made and handsomely finished. Has side handle, and being regulated in depth by a simple thumb-nut, is the most manageable tool of the kind yet introduced.

Fig. 40.
TRANSPLANTING TROWEL.—Solid Steel.

Largely used by Truckers in transplanting sweet potatoes, cabbage, etc., etc. Price each, 40 cts.

Fig. 41.
TOMATO TRANSPLANTING HOE.

A very convenient Hoe for transplanting tomatoes or other large plants. Price each, 60 cts.

Fig. 42.
EUREKA CORN KNIFE.

Solid Steel. Price 40 cts.

Curves forward and upward.

A favorite pattern in Philadelphia trade.

Fig. 43.
VINE CUTTER.

For cutting vines of sweet potatoes. Saves the back. Price, 50 cts.

Fig. 44.
SWEET POTATO HOE.

New style. Cast steel blade stamped into shape. Furnished in three sizes, $5\frac{1}{2}$, $6\frac{1}{2}$, and 8 inches wide. Prices, \$1.40, \$1.50, \$1.60.

Fig. 45.—**ASPARAGUS KNIFE.** Solid Steel. Price each, 25 cts.

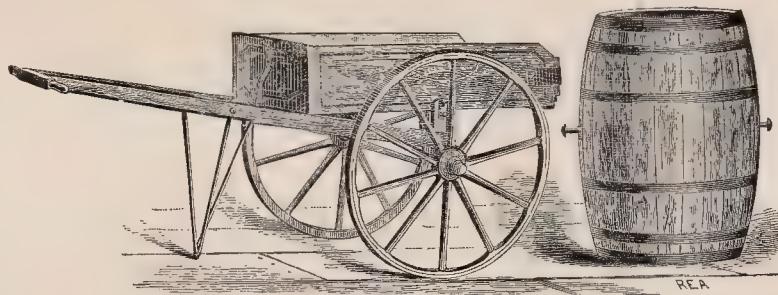


Fig. 46.

COMBINED BARREL TRUCK AND HAND-CART.

Price, Complete, as shown, \$16.25.

With Wheels $1\frac{1}{2}$ Inches Tread.

When we consider the almost innumerable uses to which our Combined Truck and Hand-cart can be applied, its "handiness" and the immense amount of time and hard labor saved by its use, it is not a matter of surprise that it is steadily growing into popular favor. It is one of those articles that causes the user to wonder how he ever did without it, as it really becomes indispensable when once used.

The barrel is raised from the ground, carried to the place desired and *instantly detached*, all *without handling*. The weight being balanced over the axle, no lifting or down pressure is needed in transportation.

Other barrels for various purposes can be used as needed, extra trunnions being furnished, if desired, which can be readily attached to any oil or spirit barrel, thus increasing indefinitely the value of the truck.

We have wheels of $1\frac{1}{2}$, $2\frac{1}{2}$, and 4 inches tread, *but always send Truck with wheels $1\frac{1}{2}$ inches, unless otherwise specified.*

We also supply a Box, with trunnions and spring catch, making a very superior *dumping* Hand-cart. Have recently added a very light and capacious rack for cartage of leaves, etc.

No castings to break; all irons of best wrought.

Very stiff, compact, handsome and low in price.

Furnished with or without Barrel or Box, as ordered.

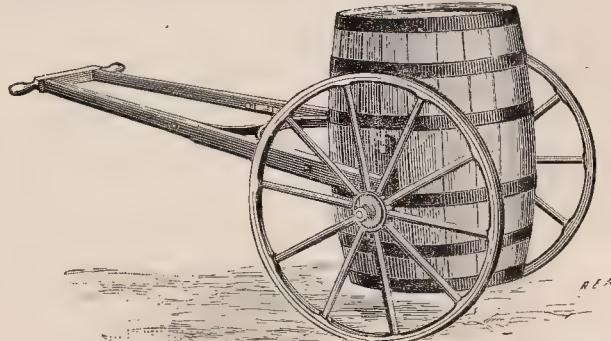


Fig. 47.

Truck only, Price, \$10.00. With Barrel, \$12.50.

With Wheels $1\frac{1}{2}$ Inches Tread.

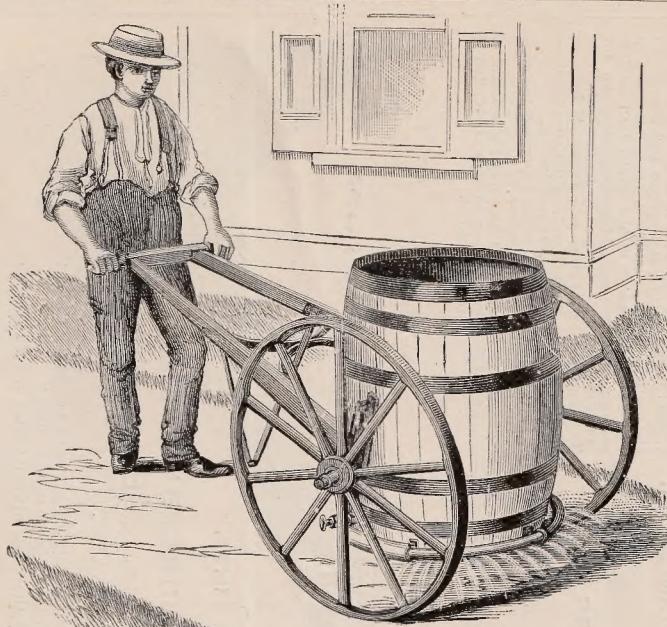


Fig. 48.—Showing Sprinkler Attachment. Price, \$3.50.

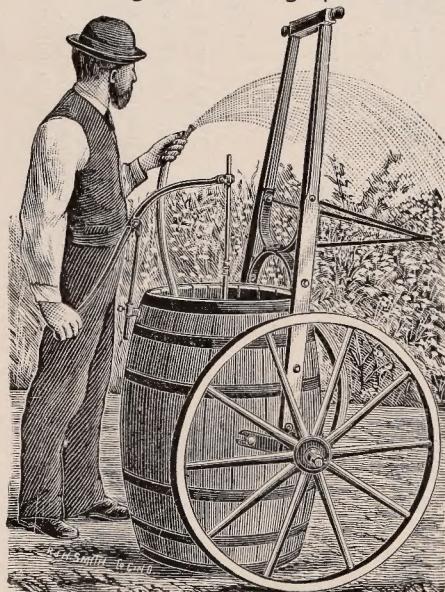


Fig. 49.—Brass Force Pump. Price, \$6.00. It is made more convenient and easier in operation. We would especially call attention to it as being so well adapted to the modern idea of spraying trees and shrubbery with insecticides; for this purpose, nothing can exceed the convenience of our Water Truck, with Pump attached.

As shown by cuts on this page, we have recently largely increased the usefulness of our Barrel Truck by the addition of a first-class *Sprinkler* and *Force Pump*, both being sold as attachments, and easily applied to barrel. The Sprinkler is invaluable for watering lawns and sprinkling walks about houses, railroad stations, cemeteries, etc. It consists of a perforated *wrought-iron* pipe, bent on a circle, thus throwing the water outside the wheels. Water is turned on and off by hand wheel and ball valve. The uses to which the Force Pump can be applied are innumerable—washing windows and carriages, spraying trees, watering plants and hot-beds—in fact, it is an admirable Garden Engine, and would do good service at an incipient fire. The pump is all brass, works very easily, and is capable of throwing a stream 40 feet.

We have lately made a change in the construction of our Force Pump, now using a brake, whereby it is made more convenient and easier in operation. We would especially call attention to it as being so well adapted to the modern idea of spraying trees and shrubbery with insecticides; for this purpose, nothing can exceed the convenience of our Water Truck, with Pump attached.

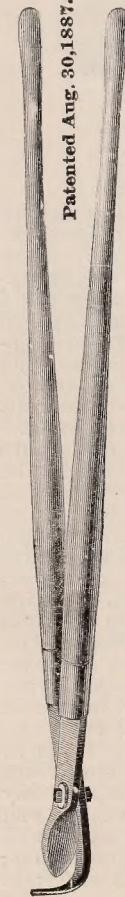


Fig. 50—THE “SYLVAN” PRUNING SHEARS.

WITH PATENTED GUARD HOOK. PRICE, \$1.75.

From the ground a man can cut 10 feet high and the ease with which the cut and lodged branches can be hooked down is an especially valuable feature of the guard hook. Very powerful, cutting with ease any limb practicable—being made with a special view to strength and lightness.

Patented Feb. 14, 1888.

Fig. 51—THE “EAGLE” SHARP-SPUR TRIMMING KNIFE

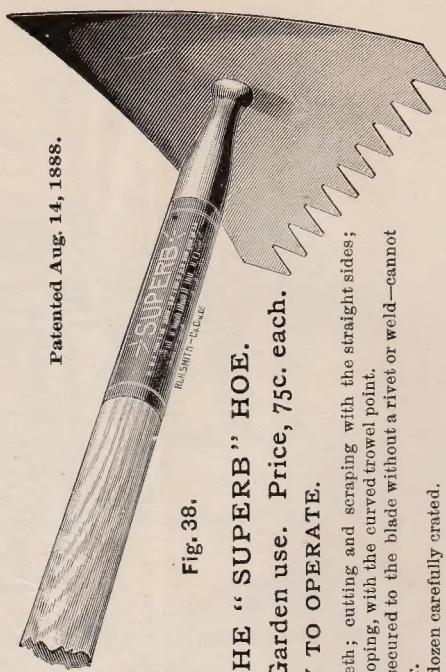
Price, - - - \$1.25.

For Cutting, Clipping and Clawing out Berry Canes, Dead Wood, Briars, Tree-sprouts, Sweet Potato Vines, etc.

NOTE THIS—it cuts and removes by cut or draw motion.

With the sharp-spur all danger is avoided of pulling out by the roots, berry canes, etc., which so often happens with other draw hooks.

Entire weight only about 2 lbs. This new tool commands itself to every farmer and gardener, and especially to fruit growers. Forged of best cutlery steel, tempered and warranted.



Patented Aug. 14, 1888.

Fig. 38.

THE “SUPERB” HOE.

A Triangular, Concave, Toothed Hoe for Field or Garden use. Price, 75c. each.

NEAT, LIGHT, EFFECTUAL AND EASY TO OPERATE.

It will do any kind of work, pulverizing and raking the soil with the teeth; cutting and scraping with the straight sides; hard digging, opening furrows, thinning plants, and removing weeds without stooping, with the curved trowel point.

The hollow socket for the handle, by an ingenious construction, is solidly secured to the blade without a rivet or weld—cannot get loose or break, and handle can easily be driven out. A first-class tree scraper. Blade of best hoe steel, tempered all over, and fully warranted. Each half dozen carefully crated.

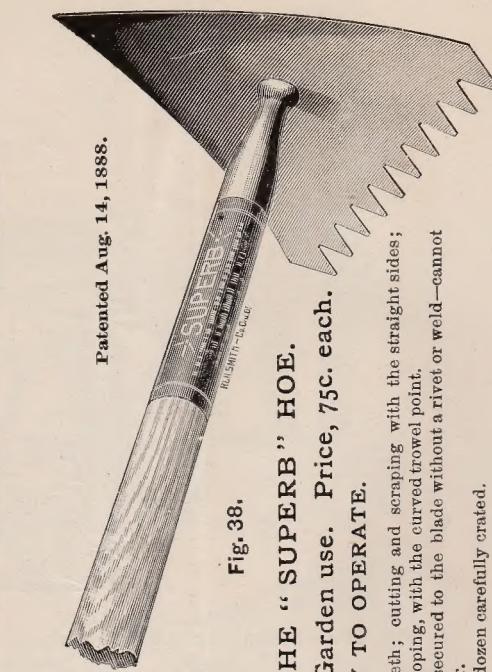


Fig. 38.

PRESSES FOR LARD, WINE, ETC.

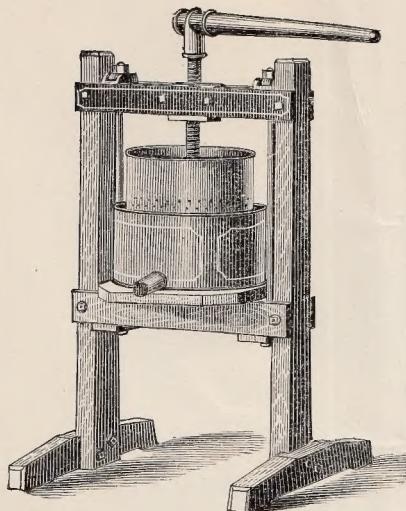


Fig. 52.

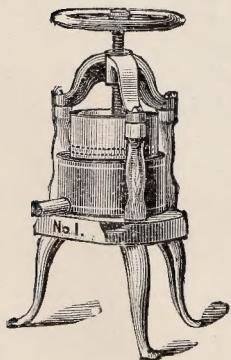


Fig. 53.

The annexed cut represents our Nos. 2 and 3 Press, of which in regard to strength and lightness, we believe there is not its equal made.

As will be seen from cut, instead of the usual heavy casting, the cross head is constructed by clamping the nut between bars of *wrought iron*, thus giving *great* strength as well as lightness. Never have known one to break. The screw is *lathe-cut*, of best wrought iron; the thread in nut is cut from the solid, and the whole press made in the best manner.

No. 2.—Farmers, size of inside cylinder, $10 \times 10\frac{1}{2}$. Price, \$9.00.

No. 3.—Butchers, size of inside cylinder, 12×13 . Price, \$14.00.

A neat, substantial Press for family use, made for real hard service, and not constructed after the trifling manner of so many light presses now in the market. Like our large sizes, the screw is *lathe-cut*, and thread in nut from solid iron.

No. 1.—Family size, inside cylinder, $7 \times 7\frac{1}{2}$.
Price, \$5.50.

REPAIRS, ETC.

We are at all times prepared to furnish repairs, or extra parts, for any of our manufactures.

In ordering, send sketch of part wanted, or its letter or number.

SPECIAL ATTENTION paid to contracts, with responsible parties, for the manufacture, in large quantities, of patented articles, entire or in part.

Work of this character forms an important part of our business.

